

# Flood Lines

## New Hampshire's Floodplain Management Newsletter

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Fall 2008

Volume III, Issue I

### What's New?

### *Release of Final Flood Studies*

#### **Release of Final Report of Independent Evaluation of Flooding Events in New Hampshire**

The Federal Emergency Management Agency issued its final report on the "Independent Evaluation of Recent Flooding in New Hampshire." The evaluation was performed to determine the specific causes of the floods of May 2006 and April 2007 in New Hampshire and provide recommendations for improving water management procedures and dam operations to reduce the impacts from future flooding. The evaluation was requested by Gov. Lynch following the floods that devastated Southern New Hampshire in 2007.

*Continued on page 5*

#### **Release of Legislative Flood Commission Final Report**

The final report of the legislative commission known as the Flood Commission was released in September 2008. New Hampshire House Bill 648 established this commission in 2007 to develop a comprehensive flood management plan for the state of New Hampshire that considers possible measures for minimizing flood impacts on communities and individual properties and to consider issues associated with flood abatement. The commission consisted of state house and senate members, representatives from various state agencies and organizations, and designated property owners.

The final report looks at New Hampshire's historical and predicted floods, current

*Continued on page 5*

#### **Release of U.S. Geological Study April 2007 Flood Study**

In August 2008, the USGS released a study that was conducted following the April 16 to 18, 2007 flooding disaster that occurred in central and southeastern New Hampshire. Disaster declarations were made in the following counties: Belknap; Grafton; Hillsborough; Merrimack; Rockingham; and Strafford.

Following the flooding, the U.S. Geological Survey, in a cooperative investigation with the Federal Emergency Management Agency, determined the peak stages, peak discharges, and recurrence-interval estimates of the April 2007 flood at 57 streamgages and 4 ungaged sites in and adjacent to the counties named in the disaster declaration.

*Continued on page 6*

## NFIP Update

### Two NH Communities Join the NFIP and One is Upgraded

Congratulations to the Towns of Effingham and Washington, which joined the NFIP on July 9, 2008 and July 28, 2008, respectively! This brings the total number of participating communities in New Hampshire to 203.

Congratulations also to the town of Gilmanton which moved from the Emergency Phase of the NFIP to the Regular Phase effective December 1, 2008.

### Newly Revised and Released FEMA Technical Bulletins

FEMA recently revised four of their 11 technical bulletins. FEMA's bulletins provide more technical detail about various NFIP requirements. The four technical bulletins were revised based on input from FEMA and stakeholders nationwide. The revisions made to the bulletins **do not** include any new regulations but instead include improved and more detailed guidance.

#### TB 1 *Openings in Foundation Walls and Walls of Enclosure*

Revisions include improved examples and illustrations and better explanation of the differences between prescriptive, non-engineered, and engineered opening requirements. It also includes revised guidance from the standard developed by the American Society of Civil Engineer's, *Flood Resistant Design and Construction* (ASCE 24) and clarifies the documentation that is to be obtained for engineered openings.

#### TB 2 *Flood Damage-Resistant Materials Requirements*

Revisions include detailed criteria to evaluate materials, updates of classifica-

tions based on field research and tests, and new materials available. Also included are several examples, illustrations, and discussions of related topics such as the potential effects of flood-borne contaminations on building materials.

#### TB 5 *Free-of-Obstruction Requirements*

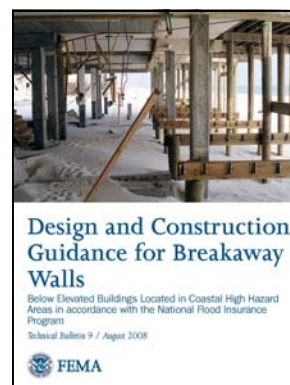
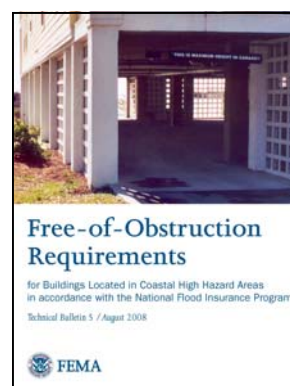
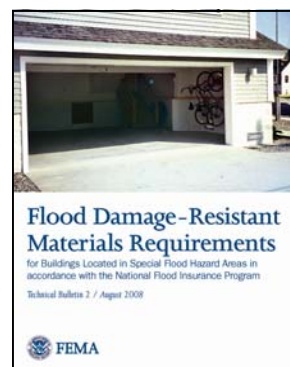
Revisions include a section on flood insurance implications and more detailed information and illustrations of the various common building elements that may significantly affect the free passage of flood flow and waves under elevated buildings. Also included is a section on site development practices and issues, which gives guidance on minimizing potential obstructive effects and practices that comply with the NFIP.

#### TB 9 *Design and Construction Guidance for Breakaway Walls*

Revisions include illustrations, performance and research on breakaway walls, and more information and examples about the prescriptive design method and the simplified methods, including several tables of design details. It also includes a section on flood insurance and building and residential code considerations. Also included are new sections on the impact of breakaway wall provisions on other building elements, repairs, remodeling, additions, and retrofitting of existing buildings, and recommendations for Coastal A Zones.

Links to FEMA's Technical Bulletins are available on OEP's web site at:

[www.nh.gov/oep/programs/  
floodplainmanagement/regulations/  
technical\\_bulletins.htm](http://www.nh.gov/oep/programs/floodplainmanagement/regulations/technical_bulletins.htm)



## NFIP Update

*(cont. from page 2)*

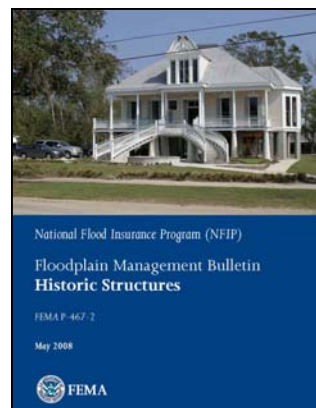
### Floodplain Management Bulletin on Historic Structures

FEMA recently released a Floodplain Management Bulletin that explains how the NFIP defines historic structures. It also explains how the NFIP gives relief to historic structures from the NFIP requirements, and gives guidance on mitigation measures that can be taken

to minimize the devastating effects of flooding to historic structures.

The link to this bulletin can be found on OEP's web site at (click on last bullet):

[www.nh.gov/oep/programs/  
floodplainmanagement/regulations/  
other\\_guidance.htm](http://www.nh.gov/oep/programs/floodplainmanagement/regulations/other_guidance.htm)



## Map Modernization Program Update

### Merrimack and Hillsborough County

OEP is still waiting to hear from FEMA regarding the effective dates of the final maps for both Hillsborough and Merrimack counties. Once the date is known, OEP staff will be contacting

each participating community in both counties regarding the date. The governing body will then have six months to adopt the new maps before they become effective. Communities' floodplain regulations will then need to be revised to reflect the new map dates.

## Flood Mitigation Update

### Grant Assistance for Allenstown

FEMA has approved five grants totaling \$2.1 million to assist the Town of Allenstown in purchasing 14 homes that suffered repeated flood damage. The grants, from the Flood Mitigation Assistance Program, will pay for 75 percent of the cost of purchasing and demolishing the homes. The 25 percent local match is still yet to be determined.

The sites will be designated as open space and no future private construction will be permitted. The homes to be purchased are near the Suncook River on Albin Avenue, Riverside Drive, and Jillerick Road. Town officials have met with affected homeowners to explain the acquisition process.

*(Source: Emergency Management News by NH Homeland Security & Emergency Management)*

### New Benefit Cost Analysis Tool Available

To be eligible for federal funding assistance, a mitigation project must be considered cost-effective through a Benefit-Cost Analysis (BCA). FEMA recently updated the BCA program, including the guidelines, policies, modules, program data, default values, user guides and training. This streamlined software will make it easier for users and evaluators to conduct and review a BCA and to address multiple hazards in a single BCA module run. Workshops on the updated tool will be scheduled in 2009 and information will be distributed at that time.

More information about the Benefit Cost Analysis Tool is available at:

[www.bchelpine.com/BCAToolkit/  
index.html](http://www.bchelpine.com/BCAToolkit/index.html)

### To learn more about the FEMA Mitigation Grants:

Please contact:

Richard Verville,  
State Mitigation Officer  
NH Homeland Security and  
Emergency Management at  
(603) 223-3619 or  
Richard.  
[Verville@hsem.nh.gov](mailto:Verville@hsem.nh.gov)

## Flood Insurance Update

### October 2008 Update to NFIP Flood Insurance Manual

Revisions have been made to the *NFIP Flood Insurance Manual* and became effective on October 1, 2008. The significant revisions include the following:

- Updates the list of NFIP Bureau and Statistical Agent Regional Offices (REF Section);
- Explains two exceptions to the provisions for reduction or reformation of coverage limits described in the Standard Flood Insurance Policy at Paragraph G of GENERAL CONDITIONS (GR Section);
- Stipulates that, for a building to qualify for floodproofing credit in an AO Zone, where the Flood Insurance Rate Map does not provide Base Flood Elevations, the building must be floodproofed to at least 1 foot higher than the Base Flood Depth (RATE Section);
- Clarifies that individual residential condominium units in a nonresidential condominium building are not eligible for building coverage (CONDO Section);
- Clarifies that the loss history criteria determining a building's eligibility for the Preferred Risk Policy apply to any 10-year period of the building's existence, regardless of ownership (PRP Section);
- Clarifies certain documentation and refund eligibility requirements related to cancellation/nullification of policies (CN Section);
- Updates the Community Rating System Eligible Communities list (CRS section); and
- Adds a discussion of the Severe Repetitive Loss Pilot Grant Program

and provides samples of letters that will be sent to policyholders, agents, and lenders of buildings eligible for mitigation grants (SRL Section).

The *NFIP Flood Insurance Manual* is available at: [www.fema.gov/business/nfip/manual.shtm](http://www.fema.gov/business/nfip/manual.shtm)

### Real Life Flood Stories on FloodSmart Web Site

FEMA's FloodSmart.gov web site is a great resource for anyone interested in learning more about the NFIP and flood insurance. For those skeptical about the need for flood insurance, check out the FEMA *FloodSmart* home web page, which includes real life stories of property owners who were very glad to have protection against the number one disaster in the United States.

Hear the story about Rich Smith who bought a house near a small creek on a property that had not seen flooding since it was built 40 years ago. Because his lender determined his house to be in the 100-year floodplain Rich was required to purchase a flood insurance policy as a condition of his mortgage. Eighteen days after closing, Rich's house had three feet of water in it. Although Rich questioned himself for getting the full amount of building coverage (\$250,000), he was glad he did since it covered the \$220,000 flood damage to his house.

To hear more about Rich's story and others, please go to [www.floodsmart.gov](http://www.floodsmart.gov).

### Number of Flood Insurance Policies in NH by County (11/30/2008)

<b>Belknap</b>	<b>333</b>
<b>Carroll</b>	<b>539</b>
<b>Cheshire</b>	<b>558</b>
<b>Coos</b>	<b>194</b>
<b>Grafton</b>	<b>912</b>
<b>Hillsborough</b>	<b>1,343</b>
<b>Merrimack</b>	<b>620</b>
<b>Rockingham</b>	<b>3,889</b>
<b>Strafford</b>	<b>456</b>
<b>Sullivan</b>	<b>171</b>
<b>State Total</b>	<b>9,015</b>





## Release of Independent Evaluation *(cont from page 1)*

The evaluation found that the causes of the flooding in May 2006 and April 2007 were different for the two events. The May event was unusual because of the sheer volume of rainfall, which ranged from 6 inches inland to over 14 inches along the seacoast over a two-day period. The region normally receives only about 3.5 inches of rainfall in an average spring month. The April 2007 event was extraordinary because of the combination of heavy rainfall, which ranged from 4 to 8 inches across south central and southeastern New Hampshire, and rapidly melting snow. The runoff produced during these events overwhelmed the region's rivers and streams, and inundated the region's floodplains. The evaluation found that the high runoff also lessened the effect of operations performed at dams in the region. All but the largest lakes in the upper reaches of the rivers filled rapidly and passed all inflows downstream.

The evaluation recommended several actions to mitigate future flood damages, including: improved floodplain management; improved flood forecasting; and a watershed approach to flood operations. These recommendations are based on the findings that:

- Flood events as large as and larger than the May 2006 and April 2007 floods are likely to happen in the

future. Communities and the State should plan accordingly.

- Many of the floodplains adjacent to the rivers and streams in the region are still relatively undeveloped. Building in these floodplains will subject the structures to flood risk and will increase the flood elevations and flow rates elsewhere, and should be discouraged. Sound floodplain management, based on accurate information about the floodplains, is critical to reducing the effects of future floods.
- Flood forecasting, while not always sufficiently accurate, should be used as a tool to help decision makers take appropriate actions during flood events.
- Storing waters in the region's lakes, ponds, and reservoirs, and coordinated dam operations help reduce flooding. However, storage opportunities in south central and southeastern New Hampshire are highly limited, and the effect of improved dam operations will be relatively minor. Implementing flood management recommendations can reduce local flooding, but cannot prevent widespread flooding from events like the May 2006 and the April 2007 events.

Source: DES Environmental News, September/October 2008.

## Release of Flood Commission Report *(cont from page 1)*

and expected dam inventory, the trends and regulation of floodplain development, as well as the current state and needs for both short- and long-term weather forecasts. It presents current thinking on actual and future risks to guide the wise investment of taxpayer funds to efficiently reach a more rea-

sonable level of protection. The State is already moving forward with implementing of some of the recommendations. A link to the final report and its recommendations are available at:

[www.nh.gov/oep/programs/floodplainmanagement/flood\\_studies.htm](http://www.nh.gov/oep/programs/floodplainmanagement/flood_studies.htm)

### Independent Evaluation of Recent Flooding in New Hampshire

July 2008



Federal Emergency Management Agency  
Department of Homeland Security  
500 C Street, SW  
Washington, DC 20472

A link to the complete copy of the report, including appendices, is available at [www.nh.gov/oep/programs/floodplainmanagement/flood\\_studies.htm](http://www.nh.gov/oep/programs/floodplainmanagement/flood_studies.htm)

New Hampshire House Bill 648  
Chapter 179 Laws of 2007  
Comprehensive Flood Management Study Commission

Final Report  
September 2008





## Upcoming Events and Training

### Zone A Workshops Summary

In September, approximately 100 people attended four workshops presented by OEP and the U.S. Geological Survey on estimating and determining base flood elevations in Zone A areas. The attendees included community officials, surveyors, engineers, and other interested parties. OEP intends to schedule at least two workshops next year and will use feedback from attendees to design the sessions.

The presentations and handouts from these workshops is available on OEP's web site at: [www.nh.gov/oep/programs/floodplainmanagement/education\\_and\\_training.htm](http://www.nh.gov/oep/programs/floodplainmanagement/education_and_training.htm)

### Floodplain Management Courses

FEMA offers many courses in Floodplain Management at the Emergency Management Institute in Emmitsburg, Maryland. All courses are free (except for the pur-

chase of a meal ticket - approximately \$95) to State and Local personnel, including a reimbursement for travel.

The E273 course called *Managing Floodplain Development Through the NFIP* is currently scheduled to be held on the following dates: **March 23 to 26, 2009; May 18 to 21, 2009; and July 20 to 23, 2009.**

The E278 course called *NFIP Community Rating System* is currently scheduled to be held on the following dates: **April 6 to 9, 2009; July 6 to 9, 2009; and August 31 to September 3, 2009.**

For more information, please see page 10 of this newsletter and OEP's web site at:

[www.nh.gov/oep/programs/floodplainmanagement/education\\_and\\_training.htm](http://www.nh.gov/oep/programs/floodplainmanagement/education_and_training.htm)



### New Web Page

#### Floodplain Education and Training

A new web page is now available on OEP's Floodplain Management Program site. Floodplain Education and Training contains links and information to floodplain education and upcoming training events in NH.

[www.nh.gov/oep/programs/floodplainmanagement/education\\_and\\_training.htm](http://www.nh.gov/oep/programs/floodplainmanagement/education_and_training.htm)

## Release of USGS 2007 Flood Study *(cont from page 1)*

Data from flood-insurance studies published by the Federal Emergency Management Agency also were compiled for each streamgage site for comparison purposes.

The peak discharges during the April 2007 flood were the highest ever recorded at five long-term (more than 10 years of record) streamgage sites:

- Salmon Falls River at Milton;
- Cocheco River near Rochester;
- Oyster River near Durham;
- Contoocook River at Peterborough; and
- South Branch Piscataquog River near Goffstown.

In addition, peak discharges equaled or exceeded a 100-year recurrence interval at 10 streamgages and a 50-year recurrence interval at 16 streamgages. The most severe flooding occurred in Rockingham, Strafford, Merrimack, and Hillsborough Counties.

Source: USGS

The USGS April 2007 Flood Study is available at:

<http://pubs.usgs.gov/sir/2008/5120/>



Prepared in cooperation with the Federal Emergency Management Agency  
Flood of April 2007 in New Hampshire



Scientific Investigations Report 2008-5120

U.S. Department of the Interior  
U.S. Geological Survey

**NFIP Feature Topic:** *Low Impact Development (LID)*

The following article was written by Lynd Morris, NFIP Bureau and Statistical Agent, and appeared in FEMA's current eWatermark issue available at: <http://watermark.nfipstat.com/index.htm>

In natural environments such as forests, rain is intercepted by trees and other vegetation as it falls to the ground. After passing through the forest canopy and bushes, rainwater is absorbed in the soil or is held in small, temporary ponds where it will eventually evaporate into the atmosphere. Except in the case of flash flooding, a relatively small portion of the rainwater falling in forests flows into surface streams.

However, significant runoff develops when trees and other vegetation are cleared, soil is scraped off or eroded, and natural depressions in the ground are graded to make a site uniform for new construction.

When buildings are erected and roads and parking lots are paved with nonabsorbent materials, rainfall has nowhere to go. Instead of soaking into the ground or evaporating from temporary ponds, rain falling on impervious surfaces quickly runs off. As it travels, water gathers force, debris, and pollutants. It flows across roads, sidewalks, and parking lots, picking up spilled oil, detergents, solvents, road salts, pesticides, and fertilizer and depositing them in small streams and rivers. The increased volume and velocity from the urban runoff resulting from thunderstorms or rapid snowmelt can cause stream banks to erode, carve new channels, and choke waterways with sediment.

Flooding can be a serious consequence of urban runoff. Sometimes property

damage caused by urban runoff occurs near the point of origination. More frequently, flooding and water pollution resulting from runoff caused by urban development is delivered to communities further downstream.

**EPA Promotes a Better Way**

In December 2007, the Environmental Protection Agency (EPA) published *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*. This publication explains how Low Impact Development (LID) mitigates the impacts of urban stormwater erosion, pollution, and flooding by mimicking the way rainfall is absorbed and runoff is slowed and filtered in a healthy natural setting.

"LID comprises a set of site design approaches and small-scale stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater," explains the report. "These practices can effectively remove nutrients, pathogens, and metals from stormwater, and they reduce the volume and intensity of stormwater flows. LID techniques manage water and water pollutants at the source and thereby prevent or reduce the impact of development on rivers, streams, lakes, coastal waters, and ground water."

**Managing Runoff, Naturally**

Instead of removing stormwater as quickly as possible and managing it in large facilities at the bottom of drainage areas (as many older drainage systems were designed to do), LID stormwater

**Reduced downstream flooding and property damage**

LID practices can be used to reduce downstream flooding through the reduction of peak flows and the total amount or volume of runoff. Flood prevention reduces property damage and can reduce the initial capital costs and the operation and maintenance costs of stormwater infrastructure. Strategies designed to manage runoff on-site or as close as possible to its point of generation can reduce erosion and sediment transport as well as reduce flooding and downstream erosion. As a result, the costs for cleanups and streambank restoration can be reduced or avoided altogether. The use of LID techniques also can help protect or restore floodplains, which can be used as park space or wildlife habitat.

Source: EPA's *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*

*Continued on page 8*

**NFIP Feature Topic: *Low Impact Development (LID)* (cont from page 7)**

management works by installing smaller landscape features onsite to mitigate the volume and rate of runoff while also removing pollutants. LID landscaping features rain gardens, grassed swales, cisterns, rain barrels, permeable pavements, and green roofs.

Although LID is typically used to maintain the predevelopment hydrology of a site, it can also be used to retrofit existing developments to reduce runoff volume, speed, and pollutants.

**LID Landscape Features**

LID employs a number of strategies mimicking the natural slowing and filtering of rainwater runoff in an undeveloped site. Rain gardens are shallow, low-lying places in residential or commercial areas that have been planted (often with native vegetation) to manage runoff from nearby impervious surfaces by slowing it before it enters the groundwater system, filtering out pollutants, and absorbing some portion of the total rainfall. Plants used in rain gardens allow water vapor to return to the atmosphere through evapotranspiration.

Grassed swales are shallow, open channels constructed along roads or parking lots and planted with flood-tolerant and erosion-resistant plants. Grassed swales are designed to slow runoff and sometimes incorporate small check-dams, which are low enough to permit stormwater to continue to flow at its peak but encourage temporary ponding when volumes decrease. Ponding filters out pollutants before groundwater is absorbed.

Cisterns and rain barrels are above-ground, temporary storage containers designed to slow and hold rainwater,

usually from the roofs of buildings. Downspouts from eaves or gutters direct the flow of rainwater to the container. Later, retained water can be reused for irrigating gardens or lawns.

Permeable pavement is porous material used to cover low-traffic areas such as residential driveways, alleys, walkways and entryways, terraces, and stalls in parking areas. Porous forms of asphalt and concrete allow water to percolate into the soil beneath while filtering out pollutants. Paving blocks also can be used to produce a porous parking or walking surface.

Green roofs are protected with some form of waterproofing, partially or completely covered with soil, and planted with vegetation. As much as 75 percent of stormwater can be retained in the soil and vegetation on a green roof before it is slowly released back into the atmosphere through condensation and transpiration.

**EPA Recommendations**

According to the EPA, *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices* can serve as a primer for low-impact site design and supply background information about the benefits of LID. The report provides developers and planners interested in implementing or promoting LID projects in the community with a breakdown of site development costs for traditional and low impact scenarios, which can be useful when presenting new designs to stakeholder groups who are unfamiliar with LID costs and benefits. More information is available at [www.epa.gov/npdes/greeninfrastructure](http://www.epa.gov/npdes/greeninfrastructure) and [www.epa.gov/nps/lid](http://www.epa.gov/nps/lid).

**LID in  
New Hampshire**

To learn more about LID designs here in New Hampshire and the other New England states, please search the University of New Hampshire Stormwater Center's Innovative Stormwater Management Inventory at [www.erg.unh.edu/stormwater/index.asp](http://www.erg.unh.edu/stormwater/index.asp)

**Case Studies Show LID  
Savings**

The EPA report summarizes 17 case studies of developments in the United States and Canada where LID practices were used. In most cases, implementing well-chosen LID practices saved money—total capital savings ranged from 15 to 80 percent, with only a few exceptions—for developers, property owners, and communities, while protecting and restoring water quality. EPA anticipates that, as LID practices gain wider use, they will become even less expensive.

While the EPA report focuses on the cost reductions and savings achievable through the use of LID practices, it also describes the many amenities and associated economic benefits communities can experience when LID features are installed. "These include improved habitat, improved aesthetics, expanded recreational opportunities, increased property values due to the desirability of the lots and their proximity to open space, increased total number of units developed, increased marketing potential, and faster sales," says the EPA report.





## Community Spotlight:

## City of Concord

The City of Concord is located in the south central portion of the state in Merrimack County. The city's estimated 2007 population was 42,044.

Several waterbodies are located in Concord and include the Merrimack River, Contoocook River, Turkey River, and several large ponds.

Concord joined the NFIP on March 4, 1980. Currently, there are 124 flood insurance policies in Concord. There have been 27 paid losses totaling \$227,971 in Concord. The most recent flooding event in Concord occurred in May 2006. Several areas in the city, including St. Paul's School, suffered damage as a result of the flooding.

Concord is being recognized because it currently enforces floodplain management regulations and conducts additional floodplain management activities that go beyond the NFIP's minimum requirements.

Concord's floodplain regulations are enforced within a Flood Hazard District. The District is comprised of the special flood hazard areas designated on the FEMA Flood Insurance Rate Maps (FIRM) and areas designated on the Corps of Engineers Maps. These two sets of maps comprise the limits of the city's Flood Hazard District.

The Flood Hazard District consists of four areas:

- 100-year floodplains (as shown on the FEMA FIRMs);
- 500-year floodplains (as shown on the the FEMA FIRMs);
- Floodway (as shown on the FEMA FIRMs) and F2 District (as shown

on the Corps of Engineers Maps); and

- F1 District (as shown on the Corps of Engineers Maps).

Concord prohibits certain uses within their Flood Hazard District areas. Residential structures are prohibited within the 100-year Floodplain areas and the F1 District area. All buildings are prohibited in the Floodway and F2 District area. The storage of toxic or hazardous materials are prohibited in all four areas of the Flood Hazard District.

Concord also enforces a "freeboard" requirement, which is an additional height above FEMA's base flood elevation that the lowest floor of a structure must be built to. Within the Merrimack River floodplain, the Code Administrator determines the required elevation by referring to the required elevations associated with the Corps of Engineers Maps, or by adding two feet to the base flood elevation shown on the FIRM and the accompanying Flood Insurance Study (FIS), whichever is greater. For floodplain areas of other surface areas within the District, one foot is added to the base flood elevation shown on the FIRM and in the FIS.

Buildings in the 500-year Floodplain area may be constructed or improved but are subject to the same elevation requirements as stated above. The required elevation is determined by the "closet, adjacent, upstream area of the 100-year floodplain."

To view Concord's floodplain regulations, please see Article 28-3-2 in their Code of Ordinances document which is available at: [www.ci.concord.nh.us](http://www.ci.concord.nh.us)



2006 Flood Damage at St. Paul's School in Concord

### To Spotlight Your Community

If you would like to spotlight your community for a regulation or a project that goes above and beyond the minimum requirements of the NFIP, please send your information to the mailing address listed under NFIP

Contact Information on page 10 or email [jennifer.gilbert@nh.gov](mailto:jennifer.gilbert@nh.gov)

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## Subscription Information

Flood Lines is available on OEP's web site. If you would like to be notified by email when the next issue is available or if you would like to unsubscribe, please go to:  
[www.nh.gov/oep/programs/floodplainmanagement/newsletter.htm](http://www.nh.gov/oep/programs/floodplainmanagement/newsletter.htm)

## The Back Page

### The Floodplain Management Learning Experience at EMI

By Jennifer Gilbert

A week at the Emergency Management Institute (EMI) is a little like going back to college. You stay in a small dormitory room, eat all your meals in the cafeteria, and attend classes during the day. Whether you liked your college days or not, taking a class at EMI is truly worth the trip.



EMI Campus in Emmitsburg, MD

EMI is part of the Federal Emergency Management Agency's (FEMA) National Emergency Training Center. The Center's 107-acre campus is located in Emmitsburg, Maryland, which is 12 miles southwest of Gettysburg, Pennsylvania and 50 miles northwest of Baltimore, Maryland. Besides EMI, the Center is also home to the United States Fire Administration (USFA), the National Fire Academy (NFA), and other agencies.

same floodplain issues and challenges as other states.

My first trip to EMI was in October 2005. It was six months after I started working for the state and entered the new world of floodplain management. After completing my application and getting approvals, I was accepted into E-273 - *Managing Floodplain Development Through the NFIP* class. My class consisted of 25 local and state floodplain officials from around the country eager to learn about the NFIP.

They say timing is everything. The day after I returned from EMI the Alstead flood event occurred. I quickly put my newly learned skills from EMI to work.

In four days, my fellow classmates and I learned a lot about the NFIP. We learned from the instructors, from our in-class exercises, and from each other. Although the instruction and materials were great and very informative, I found the interaction with my fellow classmates to be priceless. From my fellow state official from Mississippi, who had just experienced Hurricane Katrina two months prior, to the county and city officials from Florida to Washington, I was both humbled and amazed by their knowledge and experiences with floodplain management. It made me realize that even though New Hampshire is a small state with little coastline, we still have the

Three years (and two more major flood events) had passed since my last trip to EMI so I decided it was time to go back. In August 2008, I enrolled in the E-194 - *Advanced Floodplain Management Concepts* class. This class is geared towards floodplain managers with three years of floodplain management experience. The class goes into more depth about four specific modules: Roles and Responsibilities of the Local Floodplain Manager; NFIP Rules and Regulations in Depth; Letters of Map Change; and Preparing for Post-Disaster Responsibilities.

Once again, I found my experience the second time to be worth the trip. This course was more beneficial than my previous visit given my longer tenure in floodplain management and my experiences with three major flood disasters.

So if you have any interest in broadening your floodplain management knowledge and skills I encourage you to spend a week of learning and sharing at EMI. Please see page 6 of this newsletter for more information about upcoming EMI classes.